Special Issue

Advances in Battery Management Systems

Message from the Guest Editors

In recent years, we have witnessed phenomenal growth in electrochemical battery technologies driven by the proliferation of Li-ion batteries in the e-mobility and renewable energy storage sectors. At present, we are witnessing beyond-Li-ion breakthroughs in the form of new cell chemistries and configurations. For all chemistries and configurations, it holds that the successful implementation in battery-powered systems is dependent on the design of the battery management system (BMS), since this finally determines the performance of the system in its broadest sense. The BMS is, therefore, the key enabling component to assure the dependability of emerging battery technologies. For this Special Issue, we seek contributions focusing on challenges, solutions and improvements to the BMS hardware and software. We aim to highlight recent innovative discoveries addressing battery safety, state-of-charge, state-of-health, state-of-power estimation, thermal behavior, thermal runaway prediction and Li plating. Moreover, we are happy to receive contributions on the implementation of advanced measurements techniques/diagnostics, sensors and reference electrodes for BMS.

Guest Editors

Dr. Luc Raijmakers
Forschungszentrum Jülich (IEK-9), D-52425 Jülich, Germany

Dr. Kudakwashe Chayambuka
Forschungszentrum Jülich (IEK-9), D-52425 Jülich, Germany

Deadline for manuscript submissions

closed (15 December 2023)

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/si/153387

Batteries
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
batteries@mdpi.com

mdpi.com/journal/batteries

Batteries

an Open Access Journal by MDPI

Impact Factor 4.8
CiteScore 6.6

mdpi.com/journal/batteries

MDPI

About the Journal

Message from the Editor-in-Chief

Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

Editor-in-Chief

Prof. Dr. Karim Zaghib
Department of Chemical and Materials Engineering, Concordia University, Montréal, QC H3G 1M8, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Electrochemistry) / CiteScore - Q1 (Electrical and Electronic Engineering)